

**REMARKS**

**Summary of the Office Action**

The disclosure stands objected to because of informalities.

Claims 1, 2, 3, 5 and 6 stand rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by U.S. Patent No. 6,564,009 to Owa et al. (hereinafter "Owa").

Claim 4 stands rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Owa as applied to claim 1 above, and further in view of U.S. Patent No. 6,243,350 to Knight et al. (hereinafter "Knight").

**Summary of the Response to the Office Action**

Applicants have amended specification in accordance with the Examiner's helpful suggestions. In addition, Applicants respectfully traverse the rejections under 35 U.S.C. §§ 102(e) and 103(a). Accordingly, claims 1-6 remain pending for further consideration.

**Objection to the Disclosure**

The disclosure stands objected to because of informalities. Applicants have amended the specification in accordance with the Examiner's helpful suggestions as set forth at page 2, section 2 of the Office Action. Accordingly, Applicants respectfully request the objection to the disclosure be withdrawn.

**The Rejections under 35 U.S.C. §§ 102(e) and 103(a)**

Claims 1, 2, 3, 5 and 6 stand rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by Owa, and claim 4 stands rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Owa as applied to claim 1 above, and further in view of Knight. These rejections are respectfully traversed for at least the following reasons.

With regard to independent claims 1, 5 and 6, the Office Action appears to allege that Owa teaches all limitations of these claims by citing to lines 45-52 in col. 12, lines 40-51 in col. 13, and Figs. 1, 7 and 8 of Owa. For example, the Office Action indicates that a lens 17A in Fig. 8 of Owa satisfies the equation recited by independent claims 1, 5 and 6:

$$\sqrt[3]{(3V1/4\pi)} \leq rA < \sqrt[3]{(3V2/4\pi)}$$

Applicants respectfully submit, however, that Owa neither teaches nor suggests at least the feature of “ $rA < \sqrt[3]{(3V2/4\pi)}$ ,” which is satisfied when “ $rA$ ” is equal to a radius of a preformed ball utilized to form the claimed “objective lens.”

As described at line 27 of page 10 to line 7 of page 11 of the specification of the instant application, the volume of the second lens 16a (for example, the claimed “objective lens”) is determined so as to be less than that of the preformed glass ball having a center curvature radius of the first surface 21 (for example, the claimed “first surface”), and press molding of the second lens 16a is possible by using the preformed ball having such radius. Accordingly, Applicants respectfully submit that “ $rA$ ” representing the claimed “center curvature radius” is equal to the radius of the preformed ball. Unlike the disclosure in the instant application, Applicants respectfully submit that Owa, at lines 48-49 of column 12, for example, only discloses that the

lens 17A may be formed by a nonspherical plastic lens or a glass mold, but neither teaches nor suggests at least the feature of “ $r_A < \sqrt[3]{(3V/4\pi)}$ ,” which is satisfied when “ $r_A$ ” is equal to a radius of a preformed ball utilized to form the claimed “objective lens.”

Thus, Applicants respectfully submit that Owa fails to teach or suggest a claimed combination as recited in independent claims 1, 5 and 6 including at least the feature of a center curvature radius  $r_A$  of said first surface satisfies the following formula:

$$\sqrt[3]{(3V_1/4\pi)} \leq r_A < \sqrt[3]{(3V_2/4\pi)}$$

For at least the reasons as those discussed above, Applicants respectfully assert that the rejection under 35 U.S.C. § 102(e) should be withdrawn because Owa does not teach or suggest each feature of independent claims 1, 5 and 6. As pointed out in MPEP § 2131, “[t]o anticipate a claim, the reference must teach every element of the claim.” Thus, “[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. Verdegaal Bros. v. Union Oil Co. of California, 2 USPQ 2d 1051, 1053 (Fed. Cir. 1987).” Furthermore, Applicants respectfully assert that the rejections of dependent claims 2 and 3 should also be withdrawn at least because of their dependencies upon independent claim 1, and for the reasons set forth above.

In addition, Applicants respectfully submit that Knight does not overcome the deficiencies of the Owa reference. That is, Knight also fails to teach or suggest at least the above-mentioned formula as recited in independent claims 1, 5 and 6. Therefore, Applicants respectfully assert that the rejection of dependent claim 4 under 35 U.S.C. § 103(a) should be

withdrawn at least because of its dependency upon independent claim 1, and for the reasons set forth above.

With no other rejections pending, Applicants respectfully assert that claims 1-6 are in condition for allowance.

### **Conclusion**

In view of the foregoing remarks, Applicants respectfully request reconsideration and the timely allowance of the pending claims. Should the Examiner feel that there are any issues outstanding after consideration of this response, the Examiner is invited to contact Applicants' undersigned representative to expedite prosecution.

**Except** for issue fees payable under 37 C.F.R. § 1.18, the Commissioner is hereby authorized by this paper to charge any additional fees during the entire pendency of this application including fees due under 37 C.F.R. §§ 1.16 and 1.17 which may be required, including any required extension of time fees, or credit any overpayment to Deposit Account No. 50-0310.

Respectfully submitted,

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